ABSTRAK

Yatha Yuni (2017). Berpikir Intuisi dan Penalaran Matematis serta Membangun *Risk-taking* Melalui Pembelajaran *Inquiry* Berbasis *Open-Ended*.

Penelitian ini bertujuan menganalisis pencapaian dan peningkatan KBI (kemampuan berpikir intuisi matematis), KPM (kemampuan penalaran matematis), serta peningkatan membangun sikap RT (*risk-taking*) peserta didik yang mendapat pembelajaran IBOE (*Inquiry* Berbasis *Open-Ended*) selanjutnya disebut PI dan PB (pembelajaran biasa). Pencapaian dan peningkatan ditinjau secara keseluruhan dan berdasarkan kemampuan awal matematis (KAM). Metode penelitian yang digunakan adalah *mixed method* dengan strategi eksplanatoris sekuensial. Subjek penelitian melibatkan 156 peserta didik kelas 7 dari dua MTs. di Bekasi. Terdiri dari 2 kelas eksperimen dan 2 kelas kontrol yang dipilih secara *purposive*. Hasil penelitian menunjukkan bahwa: (1) Secara keseluruhan dan KAM (tinggi, sedang dan rendah), pencapaian dan peningkatan KBI yang mendapat PI lebih baik dibandingkan PB. (2) Secara keseluruhan dan KAM sedang, peningkatan KPM PI tidak lebih baik dibandingkan PB. Namun peningkatan KPM KAM tinggi dan rendah PI lebih baik dibandingkan PB. (3) Secara keseluruhan dan KAM (tinggi, sedang, dan rendah), peningkatan RT peserta didik PI lebih baik dibandingkan PB. (4) Tidak terdapat interaksi antara pembelajaran dengan level KAM (tinggi, sedang, dan rendah) terhadap peningkatan KBI. (5) Terdapat interaksi antara pembelajaran dengan KAM (tinggi, sedang, dan rendah) terhadap peningkatan KPM. (6) Terdapat interaksi antara pembelajaran dengan KAM (tinggi, sedang, dan rendah) terhadap sikap RT.

Kata Kunci: Kemampuan Berpikir Intuisi, Penalaran Matematis, *Risk-taking*, Pembelajaran IBOE

ABSTRACT

Yatha Yuni (2017). The Development of Students' Intuition Thinking, Mathematical Reasoning, and Risk-taking abilities through Open-Ended Based Inquiry Learning.

This research aims to examine the attainment and the improvement of students' abilities in mathematical intuition thinking, mathematical reasoning, and risk-taking through open-ended based inquiry learning and general learning. The students' attainment and improvement studied based on pre-mathematical ability. A mixed method applied through sequential explanatory strategy. The sample included 156 seventh grade students of two Islamic secondary schools in Bekasi by purposive sampling. Sample was divided into two groups. One group was taught through open-ended based inquiry learning and the other group was taught through general learning. Based on students' pre-mathematical ability, the groups were classified into high, moderate, and low. The results of this research are: (1) generally, there are attainment and improvement in mathematical intuitive thinking ability after open-ended based inquiry learning applied for all students with high, moderate and low pre-mathematical ability; (2) generally by moderate pre-mathemathical ability, the students' improvement in mathematical reasoning ability through open-ended based inquiry learning is not better than general learning, meanwhile there is an improvement in mathematical reasoning ability for students with high and low pre-mathemathical ability through open-ended based inquiry learning compared with conventional learning; (3) generally, there is an improvement in risk taking ability for the students with high, moderate and low pre-mathematical ability after open-ended based inquiry learning applied, compared with general learning; (4) there is no interaction between learning and students' pre-mathematical ability level towards the increament of students' mathematical intuitive thinking ability; (5) there is an interaction between learning and students' pre-mathematical ability level towards the increament of mathematical reasoning ability, and (6) there is an interaction between learning and students' pre-mathematical ability level towards the increament of risk- taking ability.

Keywords: Intuition Thinking Skills, Mathematical Reasoning, Risk-taking, Open-ended based Inquiry Learning.